



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,252	07/15/2005	Masahiro Inoue	275414US3PCT	2737

22850 7590 05/06/2008
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

WILLIAMS, THOMAS J

ART UNIT	PAPER NUMBER
----------	--------------

3683

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

05/06/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No. 10/542,252	Applicant(s) INOUE ET AL.	
	Examiner Thomas J. Williams	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,9 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 12, 2008 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 5-7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The recitations of claims 5 and 6 are specific to the embodiment of figures 1 and 2, which do not include "a caliper mount member separate from the flange and fixed to the flange with a bolt, wherein the brake caliper is removably attached to the caliper mount member", as recited in amended claim 1. As such claims 5-7 should be cancelled. With regards to claim 5, the embodiment of figure 3 lacks sufficient elements that one could refer to as "a caliper mount arm", since all the elements illustrated and taught in figure 3 are recited in claim 1. However, for examination purposes the examiner will address claim 5 and 7, but not claim 6, since the element recited in claim 5 can be interpreted as the caliper mount member already recited in claim 1.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 3,330,385 to Swift in view of US 2002/0012484 A1 to Salou et al.

Re-claims 1, 3 and 10, Swift teaches a hub unit, comprising: a hub unit having a rotation side raceway, a fixed side raceway 11 and rolling bodies (see figure 3), a brake caliper 30 is fixed to the fixed side raceway (by bolt 21 and the associated raceway flange, see figure 3), the fixed side raceway has a caliper mount provided immovable with the fixed side raceway, the caliper mount comprises: a flange integral with the fixed side raceway, a caliper mount member 20 separate from the flange and fixed to the flange by a bolt 21, the brake caliper is removably attached to the caliper mount member by a bolt 29. However, Swift fails to teach the flange provided with a brake torque sensor, wherein the sensor is fixed to the flange of the fixed side raceway.

Salou et al. teach a hub with a fixed side raceway having a flange, wherein a brake torque sensor 38 in the form of a strain gauge is fixed to the flange. Swift teaches that this structure provides a reliable and easy method by which one can measure a brake torque, thus utilizing the information for improved brake control. It would have been obvious to one of ordinary skill in the art to have provided the hub unit of Swift with a brake torque sensor fixed to the fixed side raceway flange as taught by Salou et al., thereby providing a reliable method by which one can

Art Unit: 3683

measure a brake torque applied to the wheel, and use that information for improved brake control.

6. Claims 4, 5, 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swift in view of Salou et al. as applied to claim 1 above, and further in view of JP 2001-304309 to Nomura.

Re-claims 4 and 9, Swift as modified by Salou et al. fail to teach a knuckle arm associated with the hub unit. Nomura teaches a hub unit having a knuckle arm 19 attached to a flange 16 of a fixed side raceway using the same bolt that attaches a caliper mount member 17 to the flange. This structure allows the hub unit to be attached to a steering wheel. It would have been obvious to one of ordinary skill in the art to when having utilized the hub unit of Swift on a steering wheel to have provided the unit with a knuckle arm as taught by Nomura, thus allowing for its use at a steering wheel.

Re-claim 5, the caliper mount member 20 can also be referred to as a caliper mount arm. The member 20 is integral with the fixed side raceway, since the member is fixed by bolt 21 to the raceway.

Re-claim 7, the caliper mount arm 20 is provided at a different position from that of the knuckle, as modified and taught by Nomura.

Response to Arguments

7. Applicant's arguments with respect to claims 1, 3-7, 9 and 10 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiries concerning this communication or earlier communications from the examiner should be directed to Thomas Williams whose telephone number is 571-272-7128. The examiner can normally be reached on Wednesday-Friday from 6:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi, can be reached at 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-6584.

TJW

/Thomas J. Williams/
Primary Examiner, Art Unit 3683

May 1, 2008